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MEDICINE IN ITS ECONOMIC RELATIONS.

BEING THE

INTRODUCTORY ADDRESS

DELIVERED AT

THE WESTMINSTER HOSPITAL MEDICAL SCHOOL,

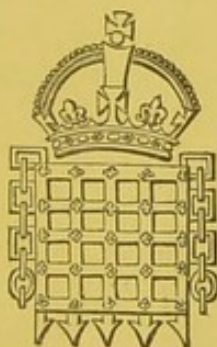
SESSION 1876-7.

BY

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MEDICINE

IN

ITS ECONOMIC RELATIONS.

Gentlemen,—The usual difficulties—and they are neither few nor small, believe me—that face the individual who, by the favour of his colleagues, is called upon to open the session of a medical school have recently had one more added to them,—I mean a justification for the address which celebrates such opening. Two of the largest schools of the metropolis have seen fit to discard the customary oration ; and, though we may not inquire into the motives for such action on their part, we are almost compelled as a small school to consider whether we should or should not follow their example. If we find that the reading of an Introductory address is fraught with harm, either to you who listen, or to me who speaks, then we cannot hesitate to say—“away with it ;” but if we can find that the only objection to it is that it is an old custom, I, for one, am not disposed to abolish it, whilst, if in any case an advantage, however small, is gained, we are surely not justified in keeping silence.

Frankly, I consider that good does come from this custom ; and though I dare not hope that my words this evening will justify this opinion, I can say that I have distinctly felt the influence for good of such addresses, not only in my first years as a student, but also more recently when I listened to the masterly oration delivered three years ago, by Mr. Brudenell Carter,

at St. George's Hospital. I am not one of those who would altogether deny in one's daily work the influence of what may be called enthusiasm, and there are few methods of so deeply stirring men's minds as spoken words. It is all very well to say that one can read an address in far less time than one can listen to it; but, apart from the possibility of the address not being read at all, it cannot be doubted but that it appeals to the brain in a far more forcible way when it comes from the author's lips, however feebly he may express his sentiments, and this in no way being affected by the intrinsic merit of the composition. I can trace in myself, and I firmly believe it to have been the case in others, the influence of the first words that I heard in a medical school,—words that not infrequently urged me on to work, and encouraged me to fresh efforts, when I felt as all who work do feel, seldom or often, that the work before them is beyond their powers. And it is exactly at the outset of the student's career that such silent help is needed. Later when he comes to see the exact position that his science takes in the wide field of knowledge, and that he as a doctor takes among his fellows, his enthusiasm has been chilled and snubbed down; happy he if it be not altogether extinguished. In the case of the boy, for little more is he very often, brought fresh from school, face to face with the many branches of study that constitute his first year's course, he is apt after a few weeks to look upon attaining a knowledge of them as almost hopeless. How valuable, then, that silent infelt influence that offers him the greatest of all rewards—encouragement—for want of which how many have perished. It is something that will rise superior to the sneering influence of those who, having gone through their initial stages, affect to decry the means which have helped them on. It is the influence of the first year that determines for good or ill the future career of many a student. Not

only, however, to those who are entering on the medical profession, but to those who, having worn off the novelty, are anticipating struggles with those that they day by day come to look upon as sworn tormentors, and who are working now because they must work, the annual address comes as a spur, perchance a warning.

So far, then, as the beginners and younger students are concerned, I can at least see that no harm is likely to come to them from listening to an "Introductory," but rather, good. It should not be forgotten by those who advocate the abolition of our custom, that, though they are no longer susceptible to the influence of words of welcome, of encouragement, and advice, the boy from school, half bewildered by his novel surroundings and responsibilities, frequently values such help; and the man who enters on the study of our profession after a college life at one of our Universities is in a wholly different mental attitude from the great majority of our first year's men. Within fair and legitimate limits I am of opinion that all means which may tend to advance the dignity of our calling in the eyes of our students are worthy to be pursued by us their teachers. Compared with other professions ours is singularly free from ceremonial. I do not think we can afford to lose the little we possess.

In later years the sense of necessity to work of the full-fledged student, which succeeded the enthusiasm of the freshman, in its turn gives way to the pride in his school of the practitioner, and, in the fulness of that justifiable pride, he betakes him to his alma mater on the 1st of October, often at a sacrifice to himself, to listen once more to some old teacher, or see what manner of man may be some new one. To such an one any advantage that the "Introductory" may offer is doubtless, in great part, a sentimental one; not, however, wholly despicable on that account. Not a little of the prosperity of a school depends on its old students, whether for recommending fresh ones,

or sending specially interesting cases to our wards. We may not afford to discard those means which shall maintain the *esprit de corps* which exists among us.

Next to the much-to-be-pitied individual who occupies the place of orator, I cannot but think that his colleagues are most to be commiserated. Happy in the sense of duty completed, or fearful of their turn to come, they constitute the most difficult portion of the audience that I am addressing.

Last, and not least, there is another plea for our yearly custom. Few and far between are the opportunities for the medical profession of bringing themselves in direct connection with public opinion. Holding as we do a position so important to our countrymen, there are of necessity questions of polity and conduct that bind us together over and above the actual profession that we practise. To a certain extent the public, as represented by the press, have come to regard this day as one on which we refer to such questions and say our say. What is to replace such occasions if we enter on our session in silence and in quiet? It is this very publicity which constitutes the great objection to our ceremony in the eyes of some; an objection which would hold equally good in regard to other occasions when we appear in public—the annual meeting of the British Medical Association for instance. The last few years have witnessed an increasing number of questions between ourselves and the outside world which compel public treatment. In the departments of State Medicine and Public Health there are many words to be said, and the recent agitations on vivisection and the medical education of women show that we cannot keep altogether to ourselves. Once grant the need for utterance on our part, I do not think there is much to be said against making an opportunity like this the occasion for our remarks, the more especially that if our remarks be worth the making they

are the more likely to receive attention on such an occasion as this when they have come to be looked for.

In the following observations I propose to consider the exact relation that the doctor holds to the public; the demands made by the public on him; how far he is able to satisfy such demands; and lastly any suggestions that may be offered to render him the abler, if need there be.

First, then, as to the science which the doctor studies, and the art which he practises, in short, the commodity that he offers to the public. The profession of the medical man is to prevent, to cure, or to alleviate the bodily sufferings of mankind. That he may be enabled to do this he has to become acquainted, more or less perfectly, with a vast number of distinct though allied sciences, each one of which is in a progressive state. It follows from this that the whole science of medicine is far from "having arrived at its extreme limits and has little to learn," as is the opinion of Sir George Duckett, of Bampton, so forcibly expressed by him in that now notorious letter to the Vivisection Commissioners. We should be loth to believe that on this point the worthy baronet can claim a majority to agree with him; Carlyle's dictum as to the wisdom of the population notwithstanding. The public in their absolute ignorance in what the practice of physic really consists are perhaps not to be blamed for any opinion that they may choose to entertain, but that is all the more reason that we should insist as vehemently as may be that medicine is far, very far, from being an exact science, and that there are very definite limits to the demands that our patients are justified in making on us. There is certainly no profession which compels such an enormous amount of preliminary training, such a wide grasp of science as our own, and whilst years—too few as I shall presently point out—are expended by us in acquiring such knowledge, our services are judged of by our employers from a stand-point of sheer misconception. We are then the vendors of an article

which it has cost us much time and money to prepare, an article which is not certainly of the best quality, as we hope in time to make it, but still one that is much better than it was, and one even in its present imperfect state that is well worth having. Dare we hope if this had been fully believed and accepted the band of fanatics who by their clamour drove our legislature, for mere peace and quietness sake, to perpetrate towards us the insult that they have done, would have been smaller than it was?

In insisting so emphatically as I have done on the progressive character of our profession, it may not be out of place if I refer briefly to some of the more important changes and advances that have taken place within the last few years, and that are even going on at the present day. First, and probably most important of all, is the very different view we take of the relation of disease to the body from what we did formerly. Down to comparatively recent times disease was regarded, if not actually as a material substance, at least as some entity that took possession of a man, and that had to be driven out whether by exorcising or by drugs. This notion, whilst practically thrown over by us, still tinges much of the treatment we pursue, and occasionally crops up, but thinly disguised, in our sayings and writings. By the public, so far as they possess any idea at all, this view of the nature of disease is almost universally held. And with such for a foundation, it is easy to comprehend the light in which they regard us. To them it would seem that our first business is to recognise by name the disease from which they are suffering, and once having ascertained that by the orthodox inquiries as to pulse, tongue, &c., to go home and take from a shelf something from a bottle which is either an antidote to that disease or else something that will drive it out of them. I need not stay to criticise this view, which certainly

shows the supremest faith in the potency of drugs, but would rather explain the idea of the nature of disease which we now hold. Briefly it is this, that disease is the departure from the normal performance of the various processes and functions carried on in the body, and that just as the normal functions depend for their due performance on a state of complete integrity of the mechanism of the body down to its minutest details, so disease is a necessary outcome of alteration in structure, whether that be obvious to the naked eye or not. Treatment, under this aspect of pathology, is put upon quite a different footing. In place of casting about for specific remedies for specific ailments, we direct our attention to repairing the injured mechanism, or putting the part affected into the most favourable condition for its self-restoration, if that be possible. The first object in our diagnosis is to discover the exact nature of the structural lesions that exist, which offers the only safe path to rational treatment. I firmly believe that what I have just said can only be fully appreciated and thoroughly comprehended by those who have by study and thought come to possess a physiological mind, by which I mean something more than a mere knowledge of the facts of that science. This mind the public does not and cannot possess, and I for one am very sceptical as to the advantage to be derived by imparting to them a smattering—it can be no more—of a subject so complex and as yet so crude as physiology is. Admitting that for our insight into the processes of disease, or pathology as we term it, we must possess a fundamental knowledge of what the body does in health, that is physiology, we at once see the path along which our science is progressing. It is by additions made to what we know already of physiology and anatomy that our own comprehension of pathology is extended. It is obvious that to be able to restore an injured object we should have some knowledge of how that object is constructed and

how it works. We do not send our watch when it has stopped to the butcher, but rather to the man who knows how and of what a watch is made, and what the various parts are for. So with us, we are not practising a mystery any longer; we are very far from knowing all that we wish, but we are on the right road to obtain our want, and in the main we see the path to be pursued. Observation and experiment, with what has been termed a scientific use of the imagination, will accomplish the rest for us. Many are the workers and daily is the work growing. Small and apparently unimportant are many of the increments that go to build up the whole, yet how important may they become in connection with other such scraps! It is difficult to make the outside world see any possible advantage to be gained by many of the experiments on animals, but it would be wiser for them to admit their incapacity than that they should become the creatures of misdirected sentiment.

Time does not permit us to mention the great strides that our profession has made as a science, during even the last thirty years. Nearer and nearer, though still far off, is the time coming when we shall cease to deserve the reproach of inexactness. Made up as our profession has been of dogmas and theories, empirical statements and imperfect observations, it cannot well be otherwise. Gleams of the light of truth are here and there visible, sufficient to show the magnitude of the obstacles that must be overcome before the full glare is reached. In that department of our profession with which the public are immediately concerned—I mean the curing and relieving—we are advancing, and on a rational basis. We still accept as facts the efficiency in their special directions of certain well-known remedies, such as quinine, opium, and iodide of potassium, though we do not know how they produce their effects; but we have abolished very many of the drugs formerly included in our pharmacopœia, and most will agree with me, I think,

in saying that more may be got rid of without their loss being felt. All this, however, is but working in the dark. On the other side we have investigators inquiring into the actual *modus operandi* of the active principles of such drugs as digitalis, belladonna, and aconite, all of which we now prescribe with the object of producing the physiological effect which is indicated in the malady under treatment. Experimental therapeutics, as yet in its infancy, is already giving promise of good fruit. Gradually, too, are the forces of nature being impressed into our service as curative agents; heat and cold are receiving a more extended application, whilst electricity and light are quite recent introductions; the former has already taken an assured place among us, and the results from more than one source of the influence of coloured lights in mental diseases would indicate that there is something to be gained in that direction. The recognition of the influence of meteorological conditions in the production and favouring of disease is of the utmost importance in respect to prevention rather than cure.

I have said enough, I think, to show clearly the present position of our science, its deficiencies, and its capabilities. There is probably no scientific or intellectual pursuit which practically concerns the community that rests on so uncertain a foundation as does ours, and though we are doing much to replace this uncertainty by fact, we have in the meanwhile imposed on us thereby the gravest responsibilities.

So much, then, for the science and art—the commodity that we supply—now for the buyers of our brains. The most striking fact to be thoroughly grasped and appreciated at the very outset is the ignorance of the public of the real nature of our work. I am far from saying that such ignorance is culpable, rather is it unavoidable. No one could obtain anything like a clear notion of what we really can and do do unless he have pursued a course of study

that would be almost sufficient to qualify him to be one of us. What can our patients know of anatomy, of physiology, of pathology, and the other branches of our science?—absolutely nothing. By the majority no doubt it is known that the medical education consists of attending lectures, walking the hospital, and dissecting, but the same majority have very hazy ideas as to the why and wherefore of such action on our part.

The public, of course, judge by results. A person is ill, he wants to be cured, and he sends for us to cure him; little he cares how we have learnt to do what he wishes, and after making due allowance for the fact that men are mortal, he estimates the value of his doctor by his success. All this is only reasonable, and I am not complaining that it is as it is; I am only stating the case. We among ourselves, knowing the nature of the science to be as I have described it, place an accurate diagnosis as the first point to be aimed at, and when that is made proceed to lay down a rational line of treatment. It is the mixture and the pill that our patient looks to, which he swallows with a complacency that is frequently proportionate to the length of name of his malady.

Just in proportion to the technical ignorance of our patients is the extravagance of the demands they make on us. Since they do not know what disease really is, they are to be forgiven for asking us anything, however impossible in respect to it.

Side by side with the unquestionable, and, as I think, for their own comfort, not altogether undesirable ignorance on the part of the public of the actual nature of the commodity they purchase from us, we are bound to extend to them the fullest expression of our acknowledgment for the complete, I had almost said blind, trust and confidence that they repose in us. One cannot but be struck in our daily practice, in whatever grade of life it may be, with the perfect reliance that is placed in us; how our very

entrance induces calm and restores confidence to a family distracted by the danger of one of its members, and with what unquestioning zeal our directions are carried out. When such is the case, how sternly does it behove us to determine that the best, and nothing short of the best, on our part should be given.

With an all-demanding public, asking too often in their suffering for impossibilities, with most limited—though extending—means at our disposal, how imperative it is that there should be no failure on our side, no diminution, through unpardonable ignorance on our part, of the too small meed of relief that it is in our power to extend. How necessary with such issues at stake that each and every doctor be of the best, aye, the very best.

Whilst no doubt there is this disposition on the part of the many to regard us as all-powerful in our combat with disease (a claim we are the first to admit we are unworthy of), there are some who hesitate, or flatly refuse to trust us. To these faithless souls, no whit less ignorant than their brethren, comes the charlatan or the quack, and finds a fallow field for his impostures. The position of this pest is one that should be duly recognised and understood. Gifted with sharpness and dealing with those who can like him perceive that our profession is not perfect in its practice, though unlike him without that special training that serves to provide him with a knowledge of the weak points of our armour, the quack, with a grain of truth, colours his false wares to the tint that is acceptable to his patrons. So long, of course, as medicine and the foundations on which it is built are changing, now making a good and sure step forward, now turning aside from the path to truth, only to retrace their steps with much labour and time expended; but on the whole—on the whole, mark you—*progressing*, so long will the history of our art be marked by what has been termed “medical fashions!” It is not difficult to

attack such changes, which to the superficial observer would seem to be as capricious as those in the styles of dress, and not much solid praise is gained by such an unequal encounter. One must admit that the differences of opinion, too often publicly displayed by members of our profession, would justify any one not educated, in any feeling of doubt or insincerity he might hold, and though such differences are much to be regretted, it is impossible at present but that they must exist, and they are usually quite to be accounted for by us. We cannot shut our eyes to the existence of the unorthodox practitioner in our midst, whether he be a degree-holding homœopath or a mere herbalist with some all-curing pill. Attacking as it seems to me the symptoms of disease without regard to the principles which underlie them, they must of necessity obtain some success, using as they frequently do the very same drugs as we ourselves prescribe. Between the results and their doctrines, the public are unable of themselves to see the connection, and swallow the explanation that is provided for them along with the nostrum.

Having laid before you the general characters of the art that we profess, and of those on whom we practise it, let us consider how far the doctor of the present day is able to satisfy the demands made on him ; how far he is able to administer a science that is vastly deficient in power to the forces with which it copes. I have spoken of the necessity there is that he should be of the best possible quality, and how criminal it is that any but the very best should be entrusted with the practice of our profession, to make up so far as possible for the deficiencies of our art. Now is he of the best that can be made? In replying to this question we have several weighty points to turn our attention to.

There can, I think, be very little doubt that the medical practitioner is very much what the public makes him. Independently of any *vis a tergo* in the shape of

increased accuracy and extent of knowledge in the science itself, and the continuously improving method of education of our students, all of which must, or ought to, raise from year to year the standard of the newly-qualified man, there is another vis, a *vis a fronte* I might say, which determines to a very great extent the calibre of the practitioner. This influence I would call the public demand. We must not forget that among the objects pursued by the medical man, there is that paramount one of making a livelihood. Few, if any, enter the medical profession on philanthropic or scientific grounds only, and it is as well for their patients perhaps that it is so. It is, in many cases, the very fact of being able to make a living out of it that first puts the notion of being a doctor into the young man's head, for it can only be long after he has really entered on his career as such that the science can be a charm or inducement to him. Directly we admit this, as admit it we must, we see that the natural qualification of the youth for the profession is likely to receive but secondary consideration. Medicine, like the church, the bar, and other professions, confers on the practiser of it a well-recognised social standing, with the additional advantage that that position is somewhat more readily and successfully gained. Small wonder, then, if many enter our ranks without thought of their fitness to be of us. It will be seen from what I have just said that I hold that a man must have certain natural qualifications to make him a good doctor, though I confess that to be pecuniarily successful they need not always exist. What these qualifications naturally are I cannot define, but they are recognised readily, and by none more readily than by those engaged in teaching. To us there come many round pegs quite unfit for the square holes to which we would fit them: pegs that, on some other board, would find a suitable resting place, and, what is more, they know it. Were we practising a profession marked out by rigid limits and governed

by exact rules, then the skill of the practitioner of such profession would be mostly, if not entirely, dependent on the amount of his knowledge of the facts that it numbers. But when practising a profession, the outlines and details of which are mostly vague and dim with but few clearly defined laws, the case is altered, and something that I must, for want of a better term, call natural tact, must make up for the deficiency. How often do we see, students and teachers alike, men who, as nearly as possible equal in the extent of bare knowledge that they possess, differ markedly in the success of their application of such knowledge. To me it seems that the more inexact, the more changing, because the less certain, an art is the more must it rely on the natural capabilities of its exponent. And again, saddest sight of all, how often do we see one who, driven to our lines by the social cause I have referred to, finds after trial his unfitness for it, and acknowledges it himself ; happy for him if the too rare possibility exists for his changing his vocation. We do meet too, and not seldom, with students who evince all the promise and capabilities of future good work in the path they have chosen ; men who possess that natural fitness that I speak of, but who, by hard fate, are compelled to hurry through their too short period of education, and, contenting themselves perforce with the soonest obtained diploma, are launched on the world, never again to have the chance of rising to the height to which they might have reached had a longer time for study been afforded them.

I am aware that the existence of natural capabilities is denied by some, who would refer the fitness that a student may display to such causes as early influences and education. I am quite willing to give these credit for a share of the result, but they do not, to my mind, account for all. I myself can recognise how the perpetual dinning by parents, nurses, and friends into the child from his earliest days the notion that he must be a doctor, that his father

was, and so on, must tend to shape the boy's thoughts in the direction of medicine, and this is still more the case if he should be brought up in the family of a medical man. On the other hand, we may, and do, find that exactly the same course disgusts rather than attracts the youth.

Given, then, the student possessing or not this natural predisposition towards his future studies, we have next to consider whether the course of education to fit him for his work is such as is likely to make the best possible out of him. Here again we have something outside, which to a very great extent, if not entirely, regulates and determines his career. Apart from any question of the money and time he may be able to afford, and putting aside any question as to the necessity there may be for the young man to get qualified as soon as possible, to help his father, or start for himself, as the case may be, the very examinations themselves, success at which entitle to the coveted qualifications, determine, to a great extent, the time that will be spent in his education.

The science of medicine, that is the nature and treatment of disease, is but one of the many branches into which the study of biology or of living things is somewhat arbitrarily, and for convenience, divided. Other branches are anatomy, or the structure of living beings, whether animals or plants; physiology, the science which treats of their functions or living actions; and zoology and botany, which comprise the classification of animals and vegetables. However necessary it may be for teaching and learning that these different branches be treated of separately, the student must never forget that they are but parts of a whole, and that for the proper knowledge of any one of them a knowledge of the rest is absolutely needful. Having during the first period of his time obtained a knowledge of these subjects, the student next proceeds to consider how the structure and functions of the body (limiting himself to the human) are modified by disease,—the sciences

of morbid anatomy, and pathology. All this forms but a half of what the medical student has to learn. He must know the ultimate chemical composition of the body and of the substances that build up the natural world around him, and he should, and in some cases is compelled to, have some knowledge of the nature and properties of the various forces that exist in nature, such as heat, light, and electricity, affecting, as they all do, so seriously ourselves no less than the objects about us. In short, there is scarcely a branch of natural science which we do not have to possess some acquaintance with, and the more extensive that acquaintance the more advantageous is it. When we come to add the study of such subjects as the nature, properties, and compounding of drugs, the legal bearings of our profession, and the manifold items included in the term sanitary science, I think I have given those of you who are new to it a sufficiently startling account of the vastness of the work you have before you. I have not done, however. I have merely indicated by name the main divisions of the whole science of biology, many of which are again subdivided, until the entire curriculum of the medical student comes to consist of at least twenty separate subjects, each of which he has to learn separately, and in most of which he is separately examined. Let it be not for one moment imagined that a smattering of them will suffice; most of them have to be known completely and thoroughly, as thoroughly, in fact, as the professors of the subjects themselves know them; a very meagre knowledge of a few, I admit, will satisfy the requirements of some of our Examining Bodies. I have but little hesitation in saying that the number of students entering on their first year who possess any preliminary acquaintance with these subjects is very small, and still fewer have, what to my mind is of more importance than a knowledge of the facts of any of those subjects, a scientific habit of thought. It is not to

be expected that they should ; and, so far as regards the majority, they attend their first lectures in a state of considerable bewilderment as to what it all means. This is not very promising. Now let us see how long he gives himself to master the huge mass of work before him, and how he "gets it up." Here we come upon the outside influence that I spoke of above—the Examinations.

For our present purpose it will be sufficient to consider the Membership of the Royal College of Surgeons of England, the qualification which is most generally taken. To obtain that, the student must have passed a preliminary examination in English, Classics, and Mathematics, be 21 years of age, have completed *four* years of professional study, and pass two examinations. It is with this period of study and the examinations that we are now concerned. What actually does the four years of professional study mean ? Each academical year consists, in this city, of nominally nine months, six of which constitute the Winter Session—from now till the end of March ; whilst May, June, and July form the Summer Session. Since, as a matter of fact, the lectures do not begin punctually to time, and usually terminate from ten to fourteen days before the end of the months of March and July, to allow for class examinations, &c., and subtracting, also, another ten to fourteen days for Christmas vacation, we have the original nine months considerably curtailed. As a rule, in the Metropolitan Schools there are not more than three or four lectures a week, of an hour each, on any subject, so that seventy-five is about the average number of lectures delivered even in our longest courses. In several of the subjects, attendance for two sessions is compulsory, and in such subjects it is not unusual to find them divided into halves, one for each session. It is exceptional for a student to attend more than three lectures daily, and a corresponding time given to the dissecting-room, ward, or laboratory makes up his

day's work, so far as the School is concerned. From all this it is easy to see that the expression, four years' study, is one that conveys a notion which is far from accurate. But there is another and a graver source of harm. As a matter of fact—and, be it remembered, I speak of the Membership of the Royal College of Surgeons—even out of this four years only three Winter and two Summer Sessions are obliged to be spent at a Medical School, the remainder of the time being passed "as the pupil of a legally-qualified Surgeon, holding the appointment of Surgeon to an Hospital, General Dispensary, or Union Work-house, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council."

This is not the occasion to criticise the value of practical instruction outside the clinical wards under the superintendence of skilled teachers, whether such instruction precede, as in the old apprentice days, the course of lectures, or whether it follow them. All I am aiming at showing is that the so-called four years of study really represent a much shorter period of time—a period wholly inadequate for the proper and complete mastery of the enormous mass of work that I have previously shown the student has to get through, and that the time allowed to be spent under the conditions I have mentioned is so much stolen from the too short time for systematic work which so-called practical instruction outside of clinical wards most certainly is not.

In order more forcibly to show you the relation between the work to be done and the time devoted to it, let us look at the regulations for the membership of the College of Surgeons forty years ago. In 1837 I find, on looking back, that the candidate was required to produce certificates : 1. Of being twenty-one years of age ; 2. Of having been engaged *five* years in the acquirement of professional knowledge ; 3. Of having studied anatomy and physiology by attendance on lectures and demonstrations, and by dis-

sections during two anatomical seasons ; the anatomical seasons corresponding to our winter sessions, and comprising at least 140 lectures on anatomy and physiology, occupying not less than one hour each, and at least one hundred demonstrations of like duration given in a similar manner, exclusive of dissections of which distinct certificates are required ; 4. Of having attended two courses of surgery delivered in two distinct seasons, each course to consist of not less than sixty lectures ; 5. Of having attended lectures on the practice of physic, on chemistry, and on midwifery during six months, and on botany and materia medica during three months ; 6. Of having attended during twelve months the surgical practice of a recognised hospital in London, Dublin, Edinburgh, Glasgow, or Aberdeen, or for six months in any one of such hospitals, and twelve months in any recognised provincial hospital. On comparing this with the present requirements we are amazed to find that forty years ago one year more of time was to be spent in acquiring professional knowledge before the diploma could be obtained than has to be so passed now, at the present day, when in each subject of study the work is more than doubled and several fresh subjects have been introduced. The improved means of education at our command, and the higher intellectual calibre of the students, may do something to amend this great discrepancy ; but I will not admit that they can do all, and we are left with the fact that with enormously increased work to be done less time is given to do it in. Were it necessary, I might compare each of the requirements in detail, and the total result would go to show that the work must have been more thorough than it can possibly be now. Further than this, a recent regulation of the same College of Surgeons has had the practical effect of still further shortening the period of systematic study—I mean by its compelling the attendance of first year's men in the surgeons' out-

patient room, where the student hears a great deal that he cannot yet rightly understand, and where in the opinion of most practical teachers he simply wastes valuable time.

Now what is the effect of all this? I do not hesitate to say, and I do so with the experience of twelve years engaged in teaching, that it engenders high pressure, imperfect, soon-forgotten work, in short, "cramming;" and so far as I can see the student of to-day must cram, if he is to pass in the time that he is expected to. This forcing operation may take place under the auspices of a "coach," when, by the way, it is curious to note the zeal of a young gentleman who would think it beneath his dignity to attend the lectures at his school, or do five minutes' work in either library or dissecting-room, or it may be fostered by those pernicious cram-books that flood our literature. But over and above this there is another evil result. Our profession is one that is made up of practical and of theoretical knowledge,—by the latter I mean that knowledge acquired from books, from lectures, and from thought. If the practical work be not based to a very great extent on the theoretical—I do not of course mean to such an extent as to prevent free inquiry—the practical is sure to become empirical, and it is on these grounds that I insist so strongly on the need for a more extended period of study under the control of teachers; and that I object as strongly to sending students into the wards and out-patients' room in their first year, and to allowing them to follow the practice of some one outside the school. As I am in the habit of frequently saying, a man has all his life to learn the practice of his profession in, it is but a small fraction of it that he can devote to the foundation; we must not curtail that too short time.

It would lead me too far were I to enter into anything like detail upon what I consider to be the evils induced by the examinations themselves. I have dwelt in full upon what I regard as their greatest influence for harm; the early

period at which they occur, thereby shortening the period of study with all its attendant ills. Did time permit, I might, I think, show that the quality of the practiser of our profession—which you will remember is the question we are considering—is far from being enhanced by the multiplicity of means open to him for entering it. That so many Examining Bodies exist among us, each with its own standard (and how they vary !), and each with the power of granting permission to practise, is a disgrace to the General Medical Council, if not to the whole profession, and loudly calls for State interference to settle the question.

Among other defects in the examinations, I might mention the injurious influence they exercise on the course of study, and I could not do so in abler language than that employed by Mr. Quain in the Hunterian Oration, delivered by him as President of the College of Surgeons, in 1869. In that address he said: "From my own experience, I know that frequent examination is of estimable value to the teacher with his own pupils. But, and also from experience, I know it to be inexpedient that the examinations of any public body should be solely or largely the guide of a professor in his teaching, or of a pupil in his work. Such examinations ought to be taken by the way, so to say, in the student's progress to self-culture, to which the incitement ought to be, not the fear of failure, or the hope of success in examinations, but the determination to acquire knowledge and mental power. Too often the preparation for examination is made to take the place of education, in so much that the object aimed at is commonly, not that a young man shall pass through a well-ordered course of study under the direction of able instructors, and thereby gain knowledge and mental power, so much as that he shall be prepared to pass certain examinations,—a very different matter."

Lastly, I might mention—and here I know I tread on very delicate ground—the possibility there is that these

same examinations, of which we hear so much, are not the complete tests of a candidate's knowledge or fitness, as they are often supposed to be, or as they might be made to be. So long, in my opinion, as they steadfastly disregard, as they practically do, the real education of the student and the report of the teacher to whom the student's capabilities are best known, so long will they fall short of being other than mere gauges of the capacity for being crammed on the part of those who present themselves.

Turning now to the system of education in vogue among us, we have, I think, every reason to be well satisfied in the main. The various subjects of the curriculum, portioned out to as many lecturers and teachers, are for the most part taught by those who have made their own department their special study, and are thereby the best fitted to impart instruction in it. By lecture, by demonstration, and by clinical work is this instruction given; and it is difficult to conceive of any more perfect means. An addition, not perhaps of the greatest importance, but yet, I think, of considerable advantage, might be suggested in the form of some course of lectures, especially for beginners, which should harmonise and connect together the various other courses. Taught separately, as the subjects necessarily are, they are apt to appear as if isolated and distinct, and induce thereby no slight perplexity in the student's mind. Such a course might conveniently be termed one of Biology, or perhaps more appropriately, the Institutes of Medicine—a title that elsewhere possesses a more limited interpretation.

Here, too, we might very reasonably discuss the question of the relative value of small and large schools; but I do not think we should come to any more definite conclusion than that they each possess special advantages.

I have thus, I think, touched upon the various points concerning the doctor which interest us at the present moment, and I cannot but come to the conclusion that the

answer to the question we set out to consider, viz., how far the doctor is equal to the demands made upon him, is not so satisfactory as it should be. In saying this I feel that I am making a serious statement, and one not lightly to be put forth, but I do so with due consideration, and I hope with proper deference and respect.

To recognise our faults is a step towards their cure, and it has been with this object in view that I have laid bare what seems to me some of the defects that exist in our system of training. I, for one, would wish to see every member of our profession "instructed up to the highest standard," and I cannot but regret that Dr. Farr should have ascribed the increasing dearth of doctors to the attempted fulfilment of this wish; since the remedy would of necessity seem to lie in lowering our standard.

I am disposed to think I may find some support for the view I have taken, from a very different source to that from which I have just now traced it to you. I mean in the way the profession is regarded and treated by the community. I have said that the profession is very much what the public make it, but at the same time I will fully admit that few are so likely to be taken at their own valuation as are ourselves. The many who will calmly submit to the treatment and remuneration of some of the institutions of this country must not be surprised at the result; did they feel justified in setting a higher value on their services, they must perforce obtain it, since the doctor has become a necessity in the State. The public clearly recognise degrees among us, and a "second-rate practitioner" is an accepted phrase. And whilst they gladly honour and pay (though not too well) those who are deservedly our leaders, the bulk of our ranks are in these respects but ill-requited, and that grudgingly. From the State, with its meagrely distributed honours to the army and navy, throughout the medical branch of which discontent at the treatment is

rife, to the authorities of parish workhouse, and even hospital, there is a general disposition to depreciate the value of the services we render to them, and to eke out what cannot be called remuneration with scanty thanks, and I cannot but think this to be the practical expression of the idea on their part that we are not so good as we should be.

And now, gentlemen, I have said my say, and the Introductory Address for this session is delivered. I sincerely trust it may not be the last to which you will listen.

To you who come among us for the first time, in the name of my colleagues and myself, I heartily bid you welcome ; be not discouraged by any unfavourable picture I may have drawn, but rather be warned by it. To you who have been and still are with us, we renew our offers of help and advice. To you, older friends, if I may so call you, who are associated with the Westminster Hospital Medical School, we tender our thanks for your presence. And to each one I would individually return my grateful acknowledgments for your courteous attention.



